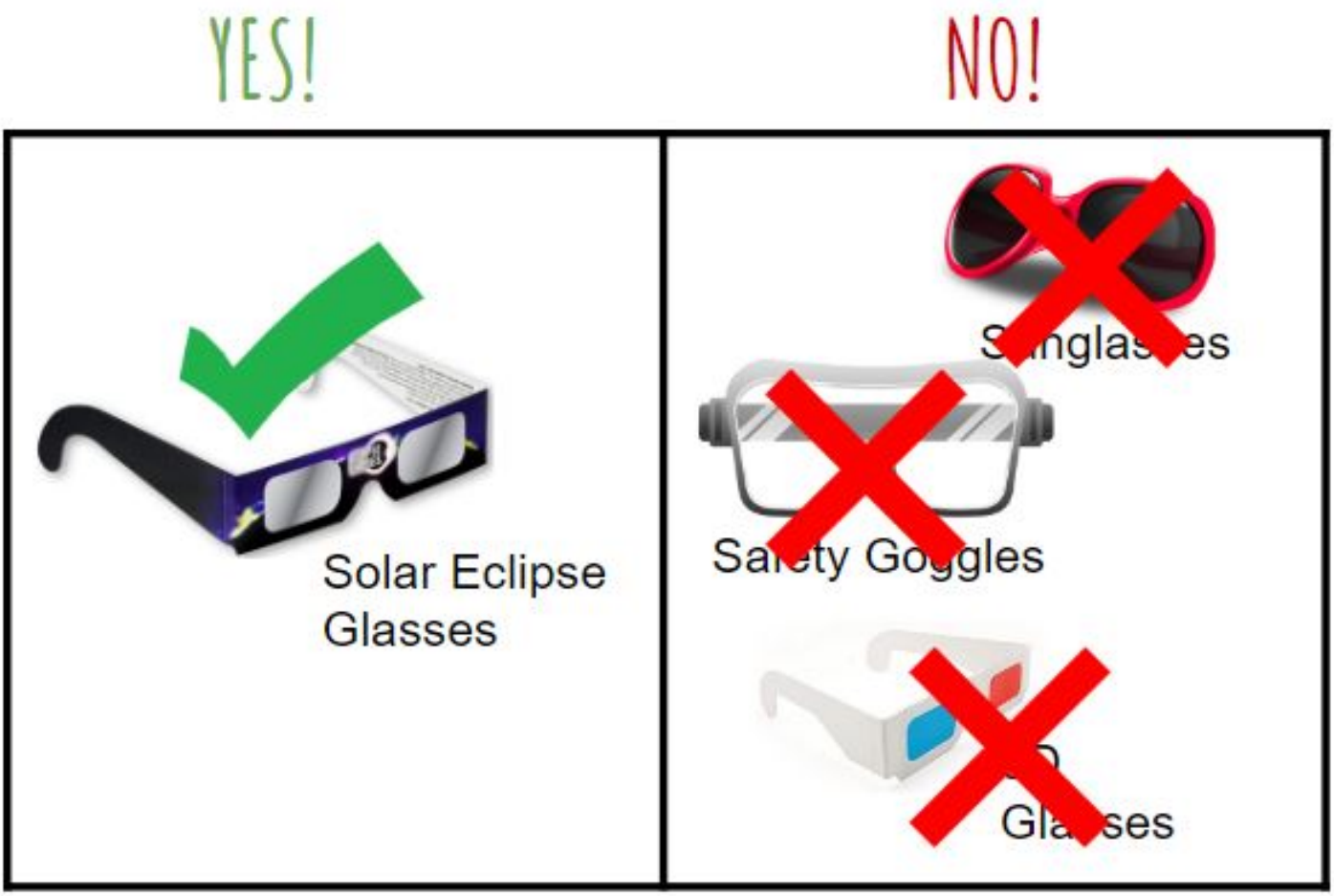
My NASA Data - Interactive Models

Safely Observing the Sun



Teachers who are interested in receiving the answer key, please complete the Teacher Key Request and Verification Form. We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access.

This product is supported by the NASA Heliophysics Education Activation Team (NASA HEAT), part of NASA's Science Activation portfolio.

Grade Band

- 6-8
- 9-12

Supported NGSS Performance Expectations

- MS-ESS1-1: Develop and use a model of the Earth-Sun-Moon system to describe the cyclic patterns of lunar phases, eclipses of the Sun and Moon, and seasons.
- MS-ESS1-2: Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.
- MS-ESS1-3: Analyze and interpret data to determine scale properties of objects in the solar system.
- HS-ESS1-4: Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.
- HS-PS2-4: Use mathematical representations of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects.
- HS-PS4-3: Evaluate the claims, evidence, and reasoning behind the idea that electromagnetic radiation can be described either by a wave model or a particle model, and that for some situations one model is more useful than the other.

NGSS Disciplinary Core Ideas

- PS2A: Forces and Motion
- PS4A: Wave Properties
- ESS1A: The Universe and its Stars
- ESS1B: Earth and the Solar System

Science and Engineering Practices

- Developing and Using Models

Crosscutting Concepts

- Scale, Proportion, and Quantity

- Systems and System Models

Related Resources

- What is GLOBE Observer Eclipse?
- NASA Heliophysics Education Activation Team (NASA HEAT)